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EXAMINER

BRAHAN, THOMAS J

ART UNIT PAPER NUMBER

3654

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/786,202

Applicant(s)

DELAGO, PIERRE C.

Examiner

Thomas J. Brahan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/25/04 & 6/24/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the second paragraph of 35 U.S.C. § 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which applicant regards as his invention.
2. Claim 11 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "the rail" lacks antecedent basis within the claims.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 19-25, 27-29 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by SU 1337-328 (cited by applicant).
6. Claims 19, 20, 31, 32, 34-36 and 38-41 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Bowes.
7. Claims 1-8, 11-35 and 39-48 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bowes in view of Goss et al US 4,061,230 or in view of SU '328. Bowes shows a system for receiving and delivering into a base (17) the radial loads imposed on a crane, wherein the crane has a center post (23) operably connected to the base, the center post has a generally cylindrical outer bearing surface, and the crane rotates in at least a partial circle around a rotational axis of the center post, the system comprising:
a plurality of rollers (27) arranged in a linked sequence along the outer bearing surface (26) of the center post (23), each roller (27) having an axis of rotation that is generally parallel to the rotational axis of the center post (23);
a link (30) connecting each roller (27) between the first and the second rollers to its

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adjacent rollers to form a flexible chain of said rollers,
wherein the linked rollers are in rolling contact with the outer bearing surface.

Bowes varies from the claims by having the rollers and links extending completely around the post (23) instead of only partially around the post as to have the link sequence anchored at the ends. Figure 3 of Goss et al shows a similar crane with the rollers extending about a third of the way about the post. SU '338 show a similar chain of rollers which extend halfway around the post to a location where the chain links are anchored to the crane. It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the roller chain of Bowes by having it extend partially about the post and anchored at its ends, as to use less rollers and have the bearing contact areas varying with the boom loading, as taught by Goss et al or as taught by SU '338. The anchoring arrangement has the fixed links, as recited in claims 2 and 13. Both Goss et al and SU '338 have back rollers opposite the linked rollers, as recited in claims 3 and 14. Bowes has a containing pad (26) as recited in claim 4, and flanges 19, as recited in claims 5 and 15. The extent that the linked rollers extend around the post, as recited in claims 6-8, 16-18 and 45-47 are obvious design considerations based upon the materials chosen for the components and the expected loading. The roller faces of Bowes are arcuate to match the face of the rail, as recited in claim 11. The attachment of the device to the post would involve tensioning the links, as a flopping linkage would not work, as recited in claims 12 and 48. The rollers of Bowes are arranged as 15 degree offsets about the post, spacing the rollers at 10 degrees, as recited in claim 33, would have an obvious design consideration, within the level of one of ordinary skill in the art at the time the invention was made by applicant.


8. Claims 9 and 36, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bowes in view of Goss et al '230 or in view of SU '328, as applied above to claims 1 and 19, and further in view of McCain. Bowes, as modified, shows the basic claimed bearing arrangement, but varies from the claims by not having flanges on the rollers, McCain shows a similar arrangement with flanged rollers (60). It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the bearing arrangement of Bowes by substituting flanged rollers for the arcuate rollers, to have the flanges hold the rollers vertically, as taught by McCain.

9. Claims 10 and 37 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bowes in view of Goss et al '230 or in view of SU '328, as applied above to claims 1 and 19, and further in view of deJong. Bowes, as modified, shows the basic claimed bearing arrangement, but varies from the claims by not having V-shaped rollers. Dejong teaches that conical and V-shaped rollers are art recognized equivalents, see the end of column 11. It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the bearing arrangement of Bowes by using V-shaped rollers

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and a V-shaped rail, instead of conical rollers and conical rails, as these are art recognized equivalents, as taught by deJong.

10. An inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Brahan whose telephone number is (571) 272-6921. The examiner's supervisor, Ms. Katherine Matecki, can be reached at (571) 272-6951. The new fax number for all patent applications is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Questions regarding access to the Private PAIR system, should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Thomas J. Brahan
Primary Examiner
Art Unit 36544